



Listed Waterbody: Monterey Harbor

Listed Condition: Lead

Progress Report: Current Project Activities: FY 04-05

This progress report describes the Regional Board's fiscal year 2004-2005 (FY 04-05) activities and a brief background of the Monterey Harbor Lead Impairment project. Previous work has identified the lead impairment as related to former lead-contaminated slag used as riprap along the harbor shoreline. The Regional Board identified Southern Pacific Railroad (now Union Pacific Railroad, UPRR) as the Responsible Party for the slagpile. In response to the listing of the Harbor on California's 303(d) List, UPRR began investigation the impairment of Monterey Harbor by Lead, including sediment and mussel tissue sampling at several locations in the Harbor.

On September 13, 2004, UPRR's consultant submitted a report titled "Monterey Harbor Lead in Sediment Study: Union Pacific Railroad" to the Regional Board. The report summarizes the results of the consultant's work to date. In addition to presenting their most recent findings (mussel tissue sampling and analysis), the report concludes with a proposal to conduct an additional phase of work to be concluded by March 2005. The proposed additional phase of work would include:

- 1) A review of the toxicological literature to obtain information regarding the most relevant species of concern for Monterey Harbor.
- 2) Additional environmental sampling including water column, sediments, and in situ mussel tissue lead bioaccumulation tests consistent with the original investigation work.
- 3) Risk assessments using the updated project database

The Regional Board anticipates that information obtained from such additional work will be helpful in evaluating the site, especially if it includes more tissue sampling collected during a second rainy season.

FY03-04 Activities and Status Report of Regional Board Staff

Based on the written report of the sediment and mussel sampling, Regional Board staff currently anticipate that the Monterey Harbor Lead Impairment project may lead to a proposed regulatory action to delist the waterbody from California's CWA section 303(d) List.

Monterey Harbor's beneficial uses may currently be attained with respect to Lead – An early task for the Monterey Harbor 303(d) Listing was to confirm that impaired conditions still existed, given that the mussel data from 1996 (used in listing the Harbor) and toxicity testing performed in the Harbor in 1998 (as part of Bay Protection and Toxic Cleanup Program, and which attributed no significant toxicity to metals in the Harbor) were inconsistent. Results reported by UPRR show mussel tissue at 3 of 10 locations tested contains lead at levels above the "MIS" (Median International Standard) guidance value reported by the State Mussel Watch. The report also includes a risk assessment calculation for ecological receptors (e.g., Herring Gulls, Southern Sea Otters) which suggests that the MIS guidance value may not be the best indicator of beneficial use attainment.

Project Progress to Date

Problem Definition and Data Analysis – As described in the text above, Monterey Harbor was placed on the 303(d) List as impairment of the Shellfish harvesting beneficial use by Lead.

Source Analysis – Previous work has identified the lead source as from a former slagpile along the harbor shoreline, which contained lead-contaminated slag. Union Pacific Railroad (UPRR) is responding to Regional Board concerns as the Responsible Party for the slagpile.

Selection of Numeric Target for Lead in Monterey Harbor – The original listing was based upon comparison of available data with “Median International Standard” (MIS) guidance values which are not regulatory standards in the state of California. UPRR’s consultant has proposed to develop more pertinent risk-based guidance values that could be applied to mussel tissue from Monterey Harbor. This phase of work is anticipated to be complete in March 2005.

Project Completion Plans for Monterey Harbor Lead Impairment

Target Linkages- An appropriate mussel tissue target concentration that can be used as an indicator of beneficial use attainment for the SHELL beneficial use is currently being developed. Because this target will be developed specifically for Monterey Harbor and evaluated in light of recent data from the Harbor, it will be directly linked to the SHELL beneficial use designation.

Loads and Allocations – Developing an appropriate numeric target for conditions in the Harbor may lead to either a proposal to remove the Harbor from the 303(d) List because it is attaining standards, or, alternatively, the target should allow Regional Board staff to create a TMDL and Implementation and Monitoring Plan for lead in the Harbor.

Planned Timeline for Completion of a TMDL for Lead in Monterey Harbor – Pending the outcome of the above activities, Regional Board staff will either make a recommendation to delist the waterbody or propose a TMDL to the Regional Board for adoption. If staff recommends delisting, the recommendation probably won’t be considered for approval until the 2006 303(d) List update. If staff recommends a TMDL it will probably be proposed to the Regional Board by December 2005. The proposal would be for approval of the TMDL by a Board Resolution finding UPRR responsible for actions and monitoring to achieve the TMDL.

Questions about this project, its’ progress, conclusions presented in this Progress Report, or anticipated future work planned or scheduled for this project should be addressed to Douglas Gouzie at the Regional Board. Dr. Gouzie may be contacted by telephone at: (805)- 542- 4762, or by e-mail at: dgouzie@rb3.swrcb.ca.gov